DETAILED ACTION

1. This action is responsive to the amendments received 8/17/09. Claims 1, 9, 14, and 17 have been amended. No claims have been newly added or canceled. Accordingly, claims 1-17 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preston et al (US PGPUB 2002/0032853) hereinafter referred to as Preston in view of Alden et al (US Patent No 6,101,543) hereinafter referred to as Alden further in view of Olofsson et al (US Patent No 6,647,265) hereinafter referred to as Olofsson.

As to claim 1, Preston teaches a method for transmitting information between applications executed in a first and a second data transmission device in a data transmission system (Fig 2a and 2b, 0035, a sending node and a receiving node)

using a data transmission protocol in the information transmission (0035,0046, applications generate messages for transmission using one of several widely available communication protocols such as a ACP, WAP, TCP, UDP, SMS)

entirely forming messages from the information to be transmitted without using information from other layers, by an application layer of a protocol stack of the first data transmission device, said entirely formed messages being different from said information to be transmitted (Figs 1, 2A-B, 0013, 0036, 0040-0042, messages are formed by the application layer in the protocol stack and then passed down to lower layers, across the physical bearer, and up the receiving node's protocol stack)

transferring the frames to a physical layer of said protocol stack for transmission (Fig 1, 0036, 0049, messages are transmitted over the physical layer)

and transmitting the frames between the first data transmission device and the second transmission device(0035, 0040-0042, one-way and two-way data exchange between sending and receiving nodes is taught).

However, Preston does not explicitly disclose inserting said entirely formed messages into data fields of frames of a lower layer of said protocol stack.

In analogous art, Alden teaches data transmission utilizing protocol stacks in which each protocol layer pre-pends headers of a lower layer to wrap information received from a higher layer, thereby inserting entirely forming messages into data fields of lower layer of said protocol stack (col 5, lines 15-27).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Alden into those of Preston to make the system more robust. By inserting a message from a higher layer as the data payload of the lower layer, each corresponding layer of the receiving node only needs to process the header which corresponds to its layer. This would avoid any confusion that may arise from multiple headers and labels in a message as only the appropriate header would be visible at a time.

However, neither Preston nor Alden teach using a bearer specified by the second data transmission device.

Olofsson teaches using a bearer specified by the second data transmission device. (see abstract, col 3, lines 35-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Olofsson into those of Preston and Alden to make the system more efficient. By allowing a user to specify the preferred bearer, a number of failed transmissions due to improper bearer can be replaced by an initial negotiation phase allowing the system to achieve a greater efficiency in data transmission.

As to claim 2, Preston teaches the method according to claim 1, comprising transmitting at least two types of components in the messages, wherein the messages contain information on the type of the component transmitted in the message (0013, 0040).

Claim 10 is essentially the apparatus of claim 2 and thus rejected under similar rationale.

As to claim 3, Preston teaches the method according to claim 2, comprising the messages at least with a header field, on the basis of which the type of the message is determined (0040).

Claim 11 is essentially the apparatus of claim 3 and thus rejected under similar rationale.

As to claim 4, Preston teaches the method according to claim 3, comprising dividing said header field at least into first and second different parts, wherein the first part is used in all messages and the second part is used, if necessary, in the transmission of the type specific information of the message transmitted in the message (0017, 0049).

Claim 12 is essentially the apparatus of claim 4 and thus rejected under similar rationale.

As to claim 5, Preston teaches the method according to claim 3, comprising providing messages with a data field to transmit information produced in the application (0036-0037).

Claim 13 is essentially the apparatus of claim 5 and thus rejected under similar rationale.

As to claim 6, Preston teaches the method according to claim 1, comprising using the protocol stack at least a session layer between the application layer and the

physical layer (Fig 2A) in which the protocol used therein contains data frames, containing at least a header field and a data field (data packet contains header and data fields), wherein the method further comprises transferring messages produced in the application layer to the data field of the data frames of the session layer (0040-0042).

Claim 14 is essentially the apparatus of claim 6 and thus rejected under similar rationale.

As to claim 7, Preston teaches the method according to claims comprising using WAP at least partly as the data transmission system (0035).

Claim 15 is essentially the apparatus of claim 7 and thus rejected under similar rationale.

As to claim 8, Preston teaches the method according to claim 1, comprising using the Internet data transmission network at least partly as the data transmission system (0060).

Claim 16 is essentially the apparatus of claim 8 and thus rejected under similar rationale.

As to claim 9, Preston teaches an apparatus comprising:

a communication network for transmitting information using a data transmission protocol between applications executed in a first and second data transmission device (Fig 2a and 2b, 0035, a sending node and a receiving node);

a protocol stack in said first and second data transmission device, the protocol stack comprising at least an application layer and a physical layer (0035, protocol

stacks such as OSI 7-layer model including an application layer and a physical layer are disclosed),

wherein said application layer is configured for entirely forming messages from the information to be transmitted without using information from other layers, said messages being different from said information being transmitted (Figs 1, 2A-B, 0013, 0036, 0040-0042, messages are formed by the application layer in the protocol stack and then passed down to lower layers, across the physical bearer, and up the receiving node's protocol stack),

and transmitting the frames between the first data transmission device and the second transmission device(0035, 0040-0042, one-way and two-way data exchange between sending and receiving nodes is taught).

However, Preston does not explicitly indicate said protocol stack is configured for performing one or more protocol conversions for said entirely formed messages to insert said entirely formed messages into data fields of frames of a lower layer of said protocol stack and for transferring the frames to a physical layer of said protocol stack for transmission.

In analogous art, Alden teaches data transmission utilizing protocol stacks in which each protocol layer pre-pends headers of a lower layer to wrap information received from a higher layer, thereby inserting entirely forming messages into data fields of lower layer of said protocol stack (col 5, lines 15-27). The instant specification discloses almost an identical “protocol conversion” process in which the protocol stack inserts entirely formed messages into data fields of frames of a lower layer

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Alden into those of Preston to make the system more robust. By inserting a message from a higher layer as the data payload of the lower layer, each corresponding layer of the receiving node only needs to process the header which corresponds to its layer. This would avoid any confusion that may arise from multiple headers and labels in a message as only the appropriate header would be visible at a time.

However, neither Preston nor Alden teach using a bearer specified by the second data transmission device.

Olofsson teaches using a bearer specified by the second data transmission device. (see abstract, col 3, lines 35-44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Olofsson into those of Preston and Alden to make the system more efficient. By allowing a user to specify the preferred bearer, a number of failed transmissions due to improper bearer can be replaced by an initial negotiation phase allowing the system to achieve a greater efficiency in data transmission.

As to claim 17, Preston teaches a terminal comprising a processor for executing applications (fig 5, 0062, a processor)

a protocol stack comprising at least an application layer and a physical layer (0035, protocol stacks such as OSI 7-layer model including an application layer and a physical layer are disclosed),

wherein said application layer is configured for entirely forming messages from the information to be transmitted without using information from other layers, said entirely formed messages being different from said information being transmitted (Figs 1, 2A-B, 0013, 0036, 0040-0042, messages are formed by the application layer in the protocol stack and then passed down to lower layers, across the physical bearer, and up the receiving node's protocol stack)

and a transmitter for transmitting information produced in the application to a data transmission system for transmission of the information by means of a data transmission protocol to an application executed in a second data transmission device (0035, 0040-0042, one-way and two-way data exchange between sending and receiving nodes is taught along with multiple protocols used in the transmission).

However, Preston does not explicitly indicate said protocol stack is configured for performing one or more protocol conversions for said entirely formed messages to insert said entirely formed messages into data fields of frames of a lower layer of said protocol stack and for transferring the frames to a physical layer of said protocol stack for transmission.

In analogous art, Alden teaches data transmission utilizing protocol stacks in which each protocol layer pre-pends headers of a lower layer to wrap information received from a higher layer, thereby inserting entirely forming messages into data

fields of lower layer of said protocol stack (col 5, lines 15-27). The instant specification discloses almost an identical "protocol conversion" process in which the protocol stack inserts entirely formed messages into data fields of frames of a lower layer

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Alden into those of Preston to make the system more robust. By inserting a message from a higher layer as the data payload of the lower layer, each corresponding layer of the receiving node only needs to process the header which corresponds to its layer. This would avoid any confusion that may arise from multiple headers and labels in a message as only the appropriate header would be visible at a time.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Olofsson into those of Preston and Alden to make the system more efficient. By allowing a user to specify the preferred bearer, a number of failed transmissions due to improper bearer can be replaced by an initial negotiation phase allowing the system to achieve a greater efficiency in data transmission.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Burnett et al, US Patent No 5,633,869 patented May 27, 1997.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASAD M. NAWAZ whose telephone number is (571)272-3988. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Asad M Nawaz/
Examiner, Art Unit 2455